

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING PEDESTRIAN SIGNALS AND UPGRADING TO APS AND CPS AT THE INTERSECTION OF U.S. 1 BUSINESS AND ATWOOD ROAD IN HARFORD COUNTY, MARYLAND. EXISTING SIDEWALK RAMPS WILL BE REPLACED TO MEET ADA REQUIREMENTS. U.S. 1 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FOUR-PHASE, FULL TRAFFIC ACTUATED MODE WITH THE US 1 BUSINESS APPROACHES OPERATING CONCURRENTLY AND THE ATWOOD ROAD APPROACHES OPERATING SPLIT.

EXCLUSIVE/ PERMISSIVE PHASING IS PROVIDED ON US 1 BUSINESS NORTHBOUND AND SOUTHBOUND.

AN ALTERNATE PED PHASE IS PROVIDED ACROSS THE NORTH AND SOUTH LEGS OF US 1 BUSINESS

A PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE EAST AND WEST LEGS OF ATWOOD ROAD.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

US 1 BUSINESS (BALTIMORE PIKE) AND ATWOOD ROAD (SOUTH LEG)

TYPICAL INTERSECTION, STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS BALTIMORE AT ATWOOD, CROSSWALK ANGLES LEFT, WAIT" *

WALK: RAPID TICK

US 1 BUSINESS (BALTIMORE PIKE) AND ATWOOD ROAD (NORTH LEG)

TYPICAL INTERSECTION, STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS BALTIMORE AT ATWOOD, WAIT" *

WALK: RAPID TICK

ATWOOD ROAD AT US 1 BUSINESS (BALTIMORE PIKE)

TYPICAL INTERSECTION, STREETS AT 90 DEGRESS

WAIT: "WAIT TO CROSS ATWOOD AT BALTIMORE, WAIT" *

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9086	1 EACH	VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	8 SF	SHEET ALUMINIUM SIGNS TO CONSIST OF: - 8 EACH R10-3(1) SIGN (9 IN. x 15 IN.) - POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

- AT THE TIME OF SIGNAL TURN ON, THE EXISTING VIDEO DETECTION CAMERAS AND INTERFACE EQUIPMENT SHALL BECOME PROPERTY OF SHA.
- ALL OTHER REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 229-2381

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 229-2361

MR. MIKE PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: (410) 229-2341

MR. ROBERT SYNDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "B"		
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	1 CY	TEST PIT EXCAVATION
6001	250 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1200 SF	5 INCH CONCRETE SIDEWALK
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8006	1 EACH	ADJUST HANDHOLE TO GRADE
8007	8 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	1 8 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8010	8 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8013	1 EACH	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8018	1 150 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8019	100 SF	DETECTABLE WARNING SURFACES
8023	1200 EACH	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8025	1245 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8033	140 L.F.	FURNISH AND INSTALL #6 BARE COPPER GROUND WIRE
8034	8 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8041	4 EACH	FURNISH AND INSTALL CAMERA AND CABLE UP TO 500'

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.03-01 (SHOULDER WORK) STANDARD NO. MD-104.03-11 (INTERSECTION FAR-RIGHT LANE CLOSURE)

STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE) STANDARD NO. MD-104.03-09 (INTERSECTION FAR-LEFT LANE CLOSURE)

STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)

WIRING DIAGRAM

WIRING KEY

A, B, C, D, E, F, G, H: 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

J, K, L, M, N, O, P, Q, R, S, T, U, V: 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

R: STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

S, T, U, V: VIDEO CAMERA DETECTION LEAD-IN CABLE

+ - 3/4 IN. X 10 FT. GROUND ROD

WHITMAN, REQUARDT & ASSOCIATES, LLP

801 South Caroline Street, Baltimore, Maryland 21231

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1 + 5 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 1 + 6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
1 + 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PHASE 2 + 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
2 + 5 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 2 + 6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PED CLEARANCE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PHASE 3	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
3 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 3 ALT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PED CLEARANCE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
3 ALT CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PHASE 4	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4 CHANGE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 4 ALT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PED CLEARANCE	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
4 ALT CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 1 BUSINESS @ ATWOOD ROAD

GENERAL INFORMATION SHEET

SCALE: NONE ADVERTISED DATE: 08/10/2010 CONTRACT NO.: XX4275/85

DESIGNED BY: B. DONOWAY COUNTY: HARFORD

DRAWN BY: B. DONOWAY LOGMILE: 12000102.15

CHECKED BY: N. LEARY TMS NO.: K235

F.A.P. NO.: TOD NO.:

TS NO.: DRAWING TSP-3 OF 3 SHEET NO. 3 OF 3

PLOTTED: 01-10-2011
FILE: N:\01689-087\OADD\Redline_01.10.2011\pSG-M003_K235_PL.dgn